

Joint Event on
Cancer Treatment & Breast Cancer and Biomarkers

March 20-21, 2019 Paris, France

Mycogenic silver nanoparticles mediated control of *Curvularia lunata*

Monika, Gaurav Kumar

Lovely Professional University, India

The aim of this study was to perform mycogenic synthesis of silver nanoparticles containing the potential to inhibit the growth of plant pathogenic fungi *Curvularia lunata* which causes Black kernel Disease to the Rice crop. During the study, 20 soil fungi were isolated on potato dextrose agar from 4 different soil samples collected from agriculture land in Phagwara, Punjab. Among the twenty fungal isolates, 3 fungal isolates synthesized AgNPs while only one of them exhibited antagonistic activity towards *C. lunata*. Confirmation of silver nanoparticles formation was performed by using UV-Visible spectroscopy, X-ray diffraction spectroscopy (XRD) and Fourier Transform Infrared (FT-IR) spectroscopy. Transmission electron microscopic images of mycogenic silver nanoparticles suggested that these particles were spherical in shape while particle size was ranging between 3-8nm. Further, biologically synthesized AgNPs were found to be non-toxic towards rice (*Oryza sativa*) seeds in germination test and pot studies while the nanoparticle treatment protected the rice plants challenged with the *C. lunata* in pot studies. Further Phytochemical tests, Anti-oxidant, Anti-bacterial activity were performed. Characterization of the fungal isolate obtained as antagonist against *C.lunata* was completed by Morphology, LPCB and then Molecular sequencing.

monikanigha5@gmail.com

Notes: